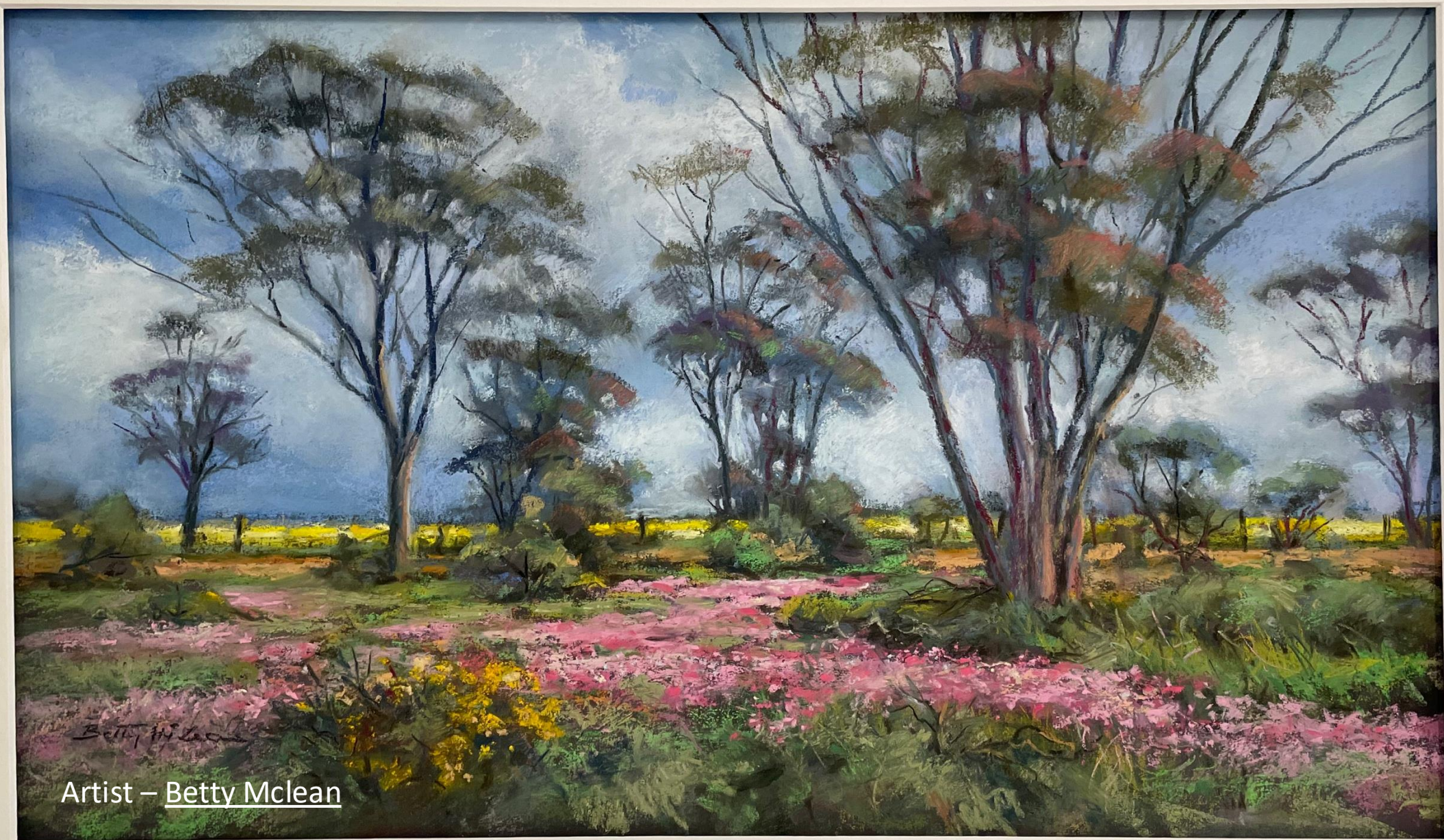# Navigating AI's Disruption: A Whole-of-System Strategy for Curriculum Transformation and Assessment Reform

Associate Professor Jan McLean

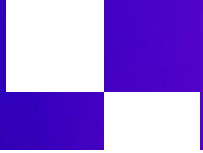University of Technology, Sydney

Artist – Betty Mclean

Artist – <u>Betty Mclean</u>

Overview

- Australian context

- Case study: UTS course wide approach to curriculum reform and assessment integrity

- Ongoing sector engagement

- Q and A – Dialogue!

UTS

In the heart of Sydney, known for being Australia's "number 1 young university" with a focus on professional practice education and partnering with industry

As of 2024, **UTS** has:

- **Around 51,000 enrolled students**, including **13K international students**.

- **Total courses in 2024** (with enrolled students): 537

- **Over 4200 full-time equivalent staff**, including casual staff

With many significant buildings!

Strong foundations in student centred approaches to learning

Australian context

Multi-tiered system - **44 universities** (public and private), institutes of HE, Technical and Further education, Private colleges

Tertiary Education Quality and Standards Agency (TEQSA) oversee quality assurance and regulation

- **Register and accredit higher education providers**.

- **Assess compliance** with the **Higher Education Standards Framework**

- **Protect student interests** and uphold **academic integrity**.

- **Respond to emerging risks**, such as those posed by generative AI

Enormous sector change – government agenda to widen participation, curb international student intake, address challenges arising from AI, financial sustainability, social licence …
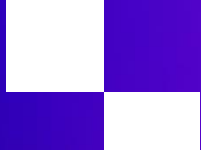
TEQSA – identified the risks presented to integrity of degrees in 2023

- They engaged the sector through extensive webinars and resources over the past year and directed us to this draw from this in our response:

  - TEQSA see - and expect us to see - GenAI as one of the biggest disruptions to affect HE in our lifetime - Assessment reform and transformation consistent themes

  - Artificial Intelligence Good Practice Hub on the TEQSA website

  - *Principles for Assessment Reform in the Age of Artificial Intelligence*

- Signalled they would be making a **Request for Information**

  - Formal but non-statutory call for higher education providers to submit documentation that demonstrates how they are addressing a specific regulatory concern

  - Encouraged approaches that look beyond risk mitigation to innovation and opportunities

  - Encouraged a collaborative approach: Expect to be able to share approaches through exemplars and case studies
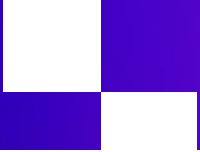
TEQSA request for information

- On 3rd June 2024 TEQSA asked each higher education institution to provide:

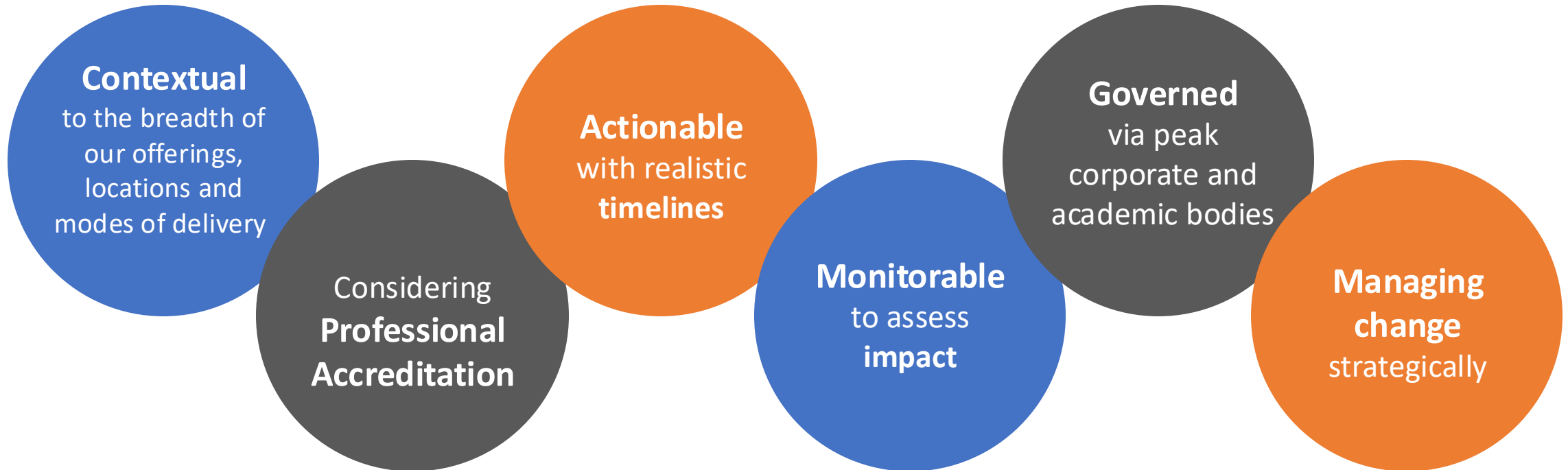 *"a credible institutional action plan, oversighted by appropriate governance mechanisms, to address the risk generative AI poses to award integrity"*

- The UTS response was submitted on 3rd July 2024 available open access

UTS

Mitigating the risks of artificial intelligence, and harnessing its potential, through assessment reform and course transformation

Response to TEQSA RFI
3rd July 2024

TEQSA expected institutional action plans to be:

Contextual to the breadth of our offerings, locations and modes of delivery

Considering **Professional Accreditation**

Actionable with realistic **timelines**

Monitorable to assess **impact**

Governed via peak corporate and academic bodies

Managing change strategically

TEQSA also links the RFI to upholding the
Higher Education Standards Framework **(Threshold Standards)**

(Some) questions posed by the HESF

? Do your current methods of assessment still provide the necessary assurance of demonstrating learning outcomes?

? Are the learning outcomes still the right ones?

? How can employers, the public and professional bodies be confident that graduates have acquired the necessary capabilities and knowledge?

AI: A regulatory perspective (teqsa.gov.au)

TEQSA

(Some) questions posed by the HESF

? Are your staff equipped with the necessary capabilities and support to effectively adapt their teaching and learning activities?

? Are your governing bodies actively engaged?

TEQSA

TEQSA sponsored report: "Assessment Reform for the Age of Artificial Intelligence"

Addressing the challenge of AI requires profound re-examination of how we understand assessment, teaching and integrity
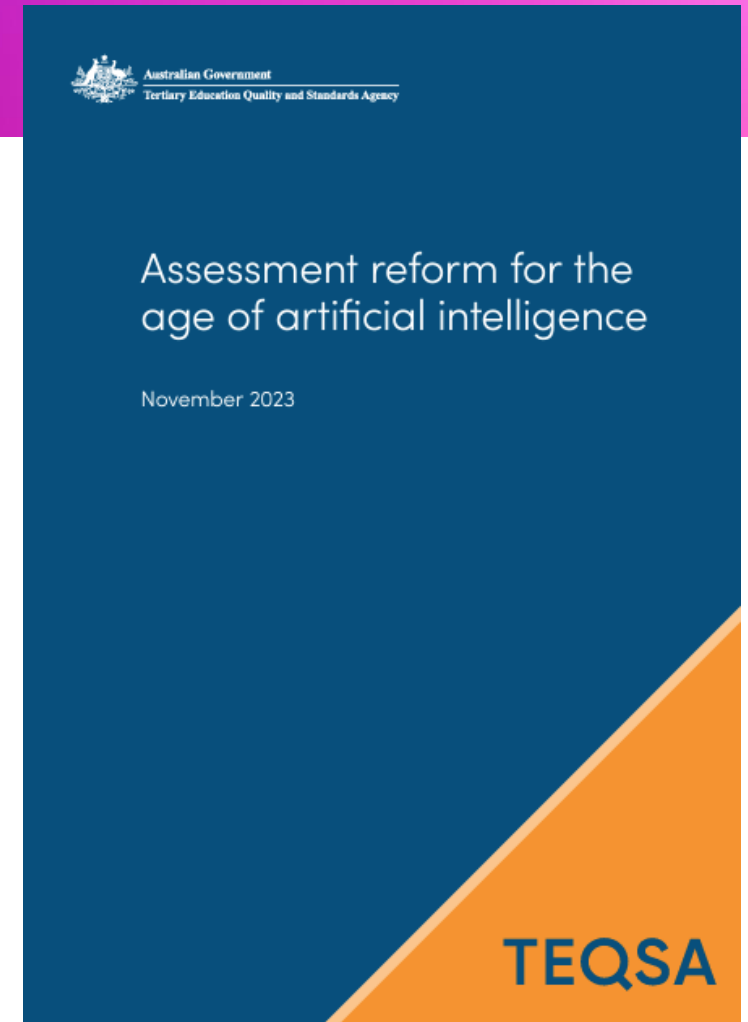
2 Guiding Principles

1. **Assessment and learning experiences equip students to participate ethically and actively in a society pervaded with AI**

   AI represents a catalyst for change unlike anything else in the past. It does not just influence how students learning can be assessed, it also influences what is worth assessing and, consequentially, what and how students learn. This necessarily includes the ability to use AI tools, as well as a broader understanding of the ethics, limitations, biases, and implications of AI.

2. **Forming trustworthy judgements about student learning in a time of AI requires multiple, inclusive and contextualised approaches to assessment**

   There is no single assessment type that can account for all desirable and undesirable uses of AI by students. Using multiple assessments of different types, when triangulated, provides greater trustworthiness and allows for practices that are more inclusive.

5 Propositions

Assessment should emphasise...

1. ...appropriate, authentic engagement with AI

2. ...a programmatic/systemic approach aligned with discipline and qualification values

3. ...the process of learning

4. ...opportunities for students to work appropriately with each other and AI

5. ...security at meaningful points across a program to inform decisions about progression and completion

TEQSA

Why is this disruptive/transformative for universities?

2 Guiding Principles

1. Assessment and learning experiences equip students to participate ethically and actively in a society pervaded with AI

> **Transformation = Learning Outcomes (LOs) adjusted** (since most if not all were written and approved prior to the widespread awareness of genAI)

2. Forming trustworthy judgements about student learning in a time of AI requires multiple, inclusive and contextualised approaches to assessment

> **Transformation = systemic (course-wide)** Ensuring assessment spans **across** the degree (and/or majors) at the right **time** and is appropriately **secured** for **assurance** of learning at award level (HESF 1.4.4) Feedback is key.

Ultimately this is about award integrity i.e. **validity** (HESF 1.4.1-7), **academic integrity** (HESF 5.2.1-4) plus enhancing learning/evaluative judgement in **engaging with AI**

What does assessment now need to do? Three key purposes

Assure	Enable	Build
Assure that learning outcomes have been met	Enable students to use information to aid their learning now	Build students' capacity to judge their own learning
• Summative assessment	• Formative assessment	• Sustainable assessment

Source – Emeritis Professor David Boud, 2023 presentationat UTS Teaching and Learning forum **Following the disruption: addressing key issues in assessment reform**

UTS Approach to Curriculum reform and Assessment Integrity

Team-based acknowledging:

Nicole Pepperell

Simon Buckingham Shum

Emily Oquist

TEQSA RFI

- Elements of the UTS response (open access) included in the TEQSA *Gen AI strategies for Australian higher education: Emerging practice* toolkit

Challenges

Opportunities

Rapid development of AI

Extent of change required

Complexity of AI-related misconduct cases

Student equity

Volatile HE environment

Action Plan

Enhancing distinctive student experience

Transforming courses (Operational Sustainability)

Establishing innovative ways of working

Scholarship and Research

The UTS response was submitted on 3rd July 2024

UTS: whole of system approach to assure and enhance learning

Principle based

Updating effective ethical engagement principles

Aligned to sector/Accord

Aligned to curriculum/assessment/ teaching quality

Holistic

Whole of course – curriculum, assessment, teaching, research training

Aligned infrastructures: policy, systems, technologies, data,

To professional learning/reward/ recognition

Phased

Iterative - pilots informing changes

Short term mitigation of risk, longer term curriculum transformation

Partnership

Course teams

Engaging students

Division with Faculties
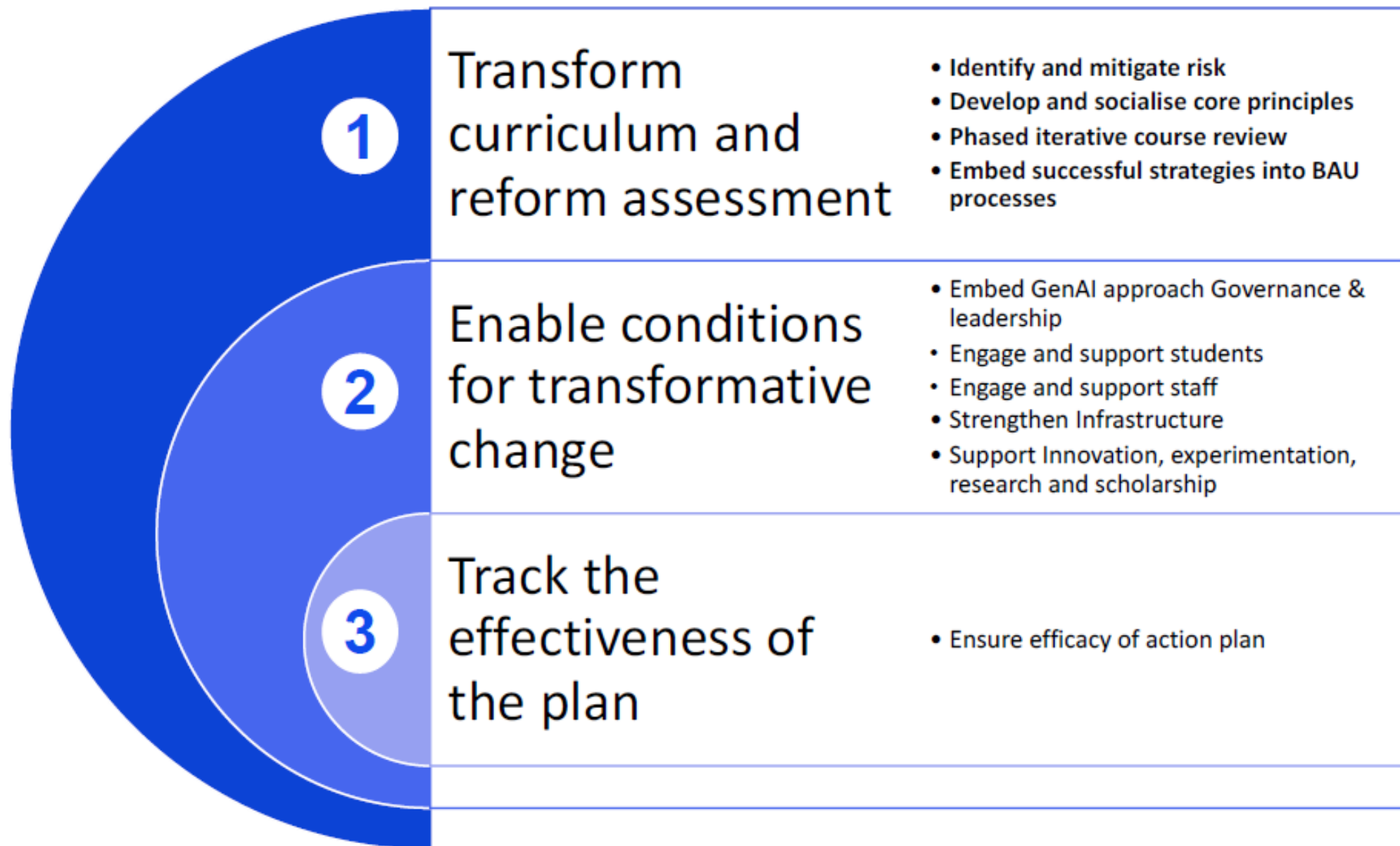
Clear accountabilities and roles

With sector

Innovation/ experimentation

Emerging technologies/tools

Using GenAI

Reimagining course teams

course-wide approaches to assessment and feedback

Evidence based

Regular monitoring of data

Research into staff and student experiences

Critiquing assumptions

Architecture of the Action Plan

1 Transform curriculum and reform assessment

- Identify and mitigate risk
- Develop and socialise core principles
- Phased iterative course review
- Embed successful strategies into BAU processes

2 Enable conditions for transformative change

- Embed GenAI approach Governance & leadership
- Engage and support students
- Engage and support staff
- Strengthen Infrastructure
- Support Innovation, experimentation, research and scholarship

3 Track the effectiveness of the plan

- Ensure efficacy of action plan

Transform curriculum and reform assessment

Risk identification and mitigation

- Managing risk while reaffirming UTS commitment to fit for purpose, authentic assessment

Reviewing policy to support future direction

- Course policy under review, assessment and academic integrity queued up
- UTS has adopted five curriculum Design Principles: Adaptive, Connected, Inclusive, Transformative, and Evidenced to guide the design process

Iterative course review

- Guidance to undertake a review of courses (student success, assessment security and sustainability)
- Staged approach based on iterative cycle – reaccreditation, risk, reach, review
- Leveraging Central Divisions/Faculty partnerships; supported by **cross functional** course teams

Embedding successful strategies into BAU processes

- Governance, design and reaccreditation
- Professional learning and resources
- Recognition and reward

2 Guiding Principles

1. Assessment and learning experiences equip students to participate ethically and actively in a society pervaded with AI

2. Forming trustworthy judgements about student learning in a time of AI requires multiple, inclusive and contextualised approaches to assessment
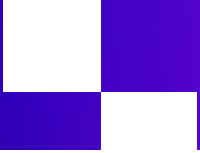
One year on from submitting the TEQSA RFI

- Assessment Reform and curriculum transformation now integrated into a broader institution wide change program: **Sustainable Teaching and Learning**
  - Involves developing implementation plans for all UTS courses in 2025, with implementation in 2026
- Continue work across other levels including:
  - Short-term updating of subjects (introducing and using GenAI, adapting assessments)
  - Policy change
  - Developing the data and digital ecosystem
  - Enhanced support for staff and students to build GenAI literacy
- GenAI/bot development to enhance teaching and learning
- Plus building engagement with risks and mitigations – a key and evolving challenge!
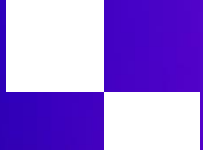
Curriculum Transformation (CxT)

GenAI has *not* changed our core goals:

Enable	Empower	Engage
students to demonstrate that they possess knowledge and skills expressed in the university's Course Intended Learning Outcomes (CILOs)	students to achieve their academic and personal goals	our students by developing their sense of: • wellbeing, • belonging, and • partnership

Core principles of good assessment design also remain the same

- **Aligned:** the assessment is designed to capture evidence that students are achieving a CILO;

- **Reliable:** students should receive comparable results for comparable performance;

- **Valid:** the assessment actually measures what we intend for it to measure;

- **Fair:** no student is advantaged or disadvantaged by factors that are unrelated to what we are trying to assess;

- **Transparent:** it is clear to students and staff what a student needs to do to achieve a given result on an assessment; and

- **Designed for Integrity:** we have confidence that the work produced for an assessment reflects the student's own knowledge, skills and effort.

GenAI *has* changed:

Context	Confidence	Coordination
Students must be prepared to engage ethically and critically for a world with increasingly permeated by GenAI	This change has shaken our confidence in many traditional approaches to assessment	The solution requires a more coordinated, whole-of-course approach to assessment and teaching design

Key strategies:

Learning, not cheating

Engaging, not banning

Achieving integrity, not just security

Building relationships

To engaging students in *using* GenAI – ethically, effectively and critically
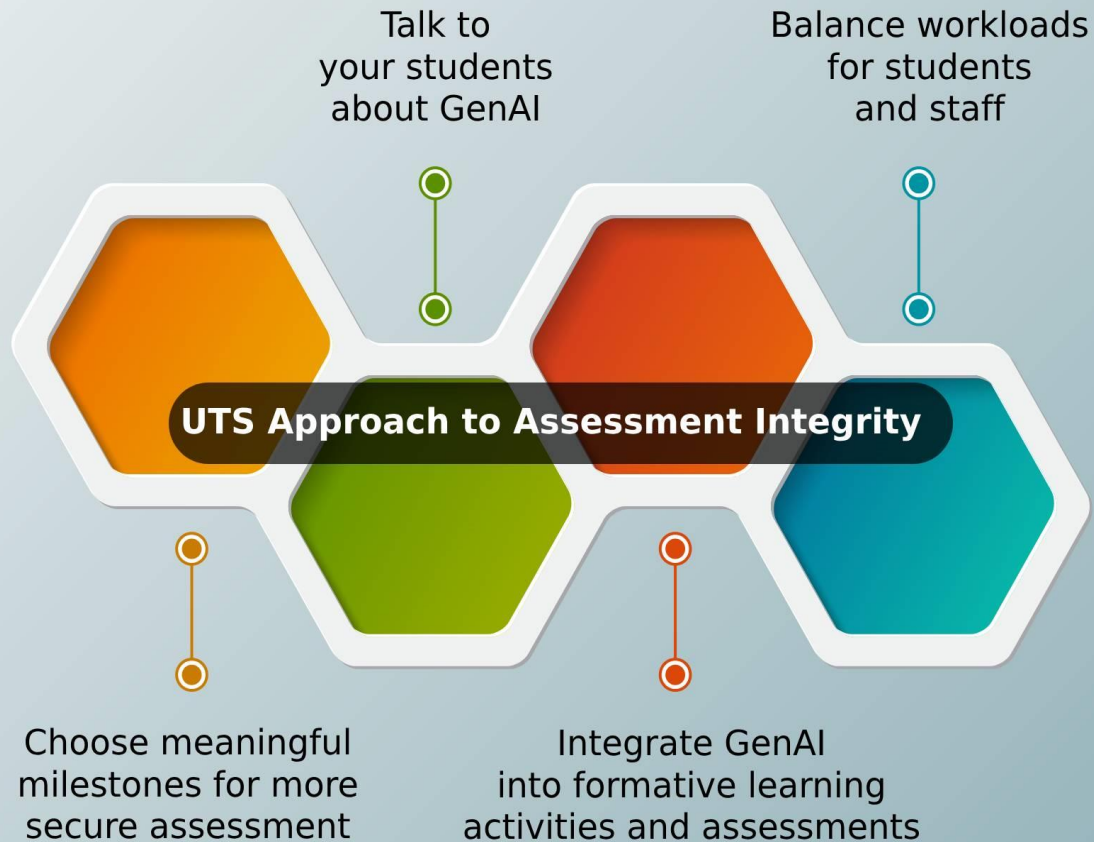
Away from banning in subjects

Re-considering assessment as course-wide not unit specific

- Focus on process of learning (away from outcomes alone), Feedback is critical - evaluative judgement

- Reframing "security" – beyond tasks/subjects to course level milestones that assure learning (against CILO's)

  - investing in securing fewer high quality authentic assessments
  - away from securing every assessment, and from detection

To designing *in* academic integrity – building AI literacies across a degree

"from detecting cheating to detecting whether learning has occurred" (Cath Ellis, Lodge, 2024)

Mosaic approach - bringing diverse strategies together into a cohesive whole

Talk to your students about GenAI

Balance workloads for students and staff

UTS Approach to Assessment Integrity

Choose meaningful milestones for more secure assessment

Integrate GenAI into formative learning activities and assessments

Whole of course approach

Building on familiar curriculum mapping practices used to gain confidence that students are achieving CILOs, additional elements to be identified and mapped:

- where and how skills to engage critically and ethically with GenAI tools are introduced and developed

- where the key milestone moments across a course are to embed more secure *and* authentic assessment strategies to gather evidence of student progression toward, and achievement of, each CILO

- where reducing workload with less secure assessment is warranted, to balance workloads for both staff and student
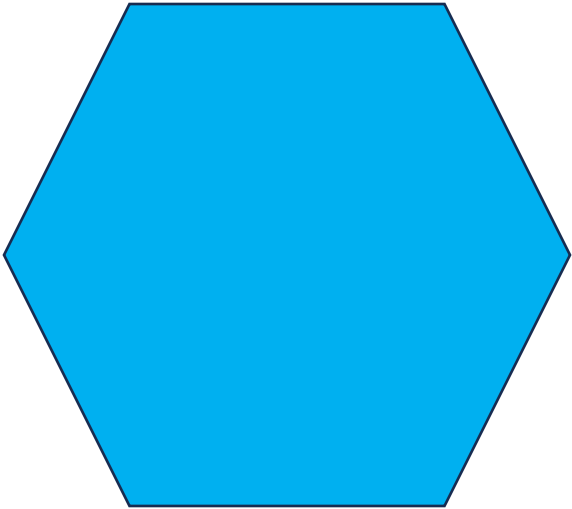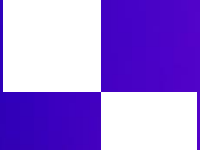
Seek evidence of learning

Focus on Learning

A lot of the popular discussion of GenAI has focused on cheating – and how we catch it

What we really want to know is what our students are learning – and how we capture evidence of learning
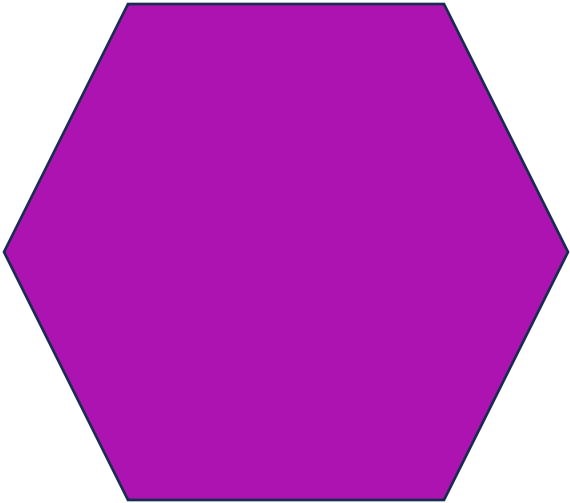
We can designate secure interactive assessments at regular intervals across a course to offer students opportunities to produce evidence of what they have achieved

Once milestones have been mapped:

Other assessments can take a wide variety of forms.

GenAI should not be wholly banned in a subject – but you should provide guidance about its use!

Design for integrity

Designing for integrity requires more than just security

| Communication	Scaffolding	Feedback	Workload	Relationship
State our expectations clearly – including why students benefit.	Design a well-staged approach for students to learn: * Content and skills; * How to engage with specific assessment types; * Ethical and critical use of GenAI tools.	Provide meaningful opportunities for students to receive feedback.	Manage student workloads and design for resilience.	Know our students and offer regular opportunities for meaningful interactions.

Assessment security is *one* element of designing for integrity

- Security means that we have:
  - Trustworthy evidence of identity; and
  - Confidence that work provides genuine and authentic evidence of the student's own personal achievements.
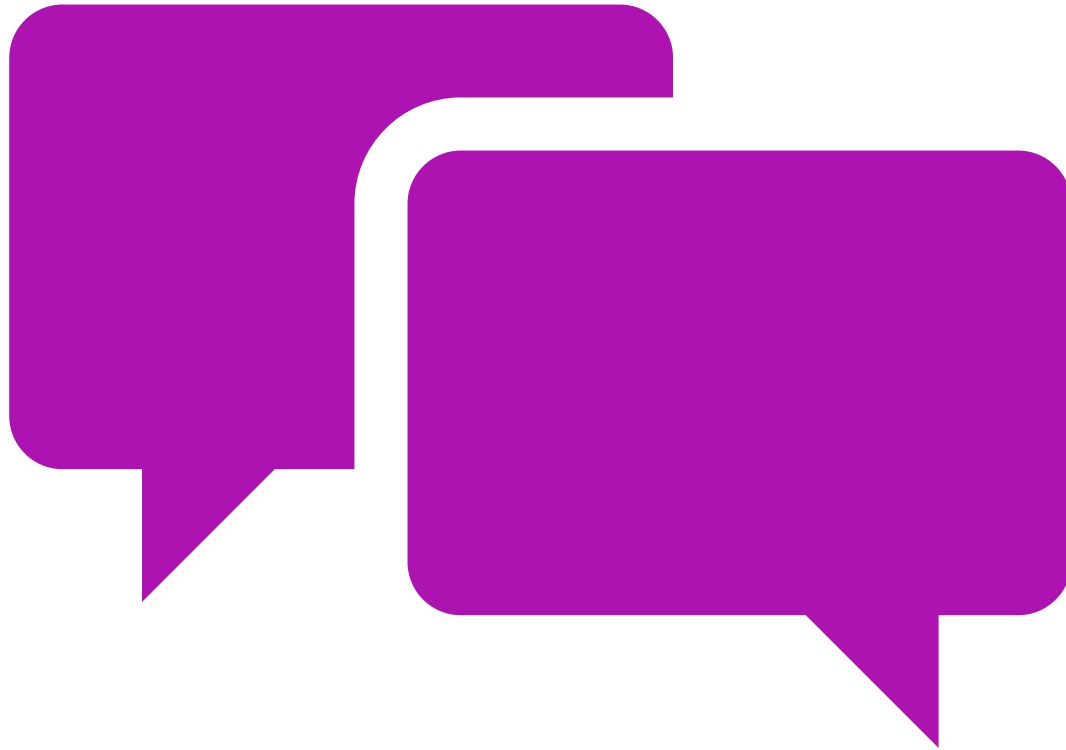
Interaction provides more confidence in assessment security

- Can probe students' knowledge and understanding in real time

- Builds relationships between staff and students

- Often enables more authentic assessment strategies

Many subjects are already using interactive assessments

- Vivas and oral exams
- Presentations with Q&A
- Dialogues or interactive seminars
- OSCEs and practical assessments
- Simulations with real-time interactions
- Any type of assessment that includes a real-time interactive component

Interaction might be only a component

- Students could:
  - o produce work under any condition, and then interact about their work under more secure conditions later
  - o assemble a portfolio of work from many different assessments – including multiple subjects – and then discuss or present on the portfolio under more secure conditions
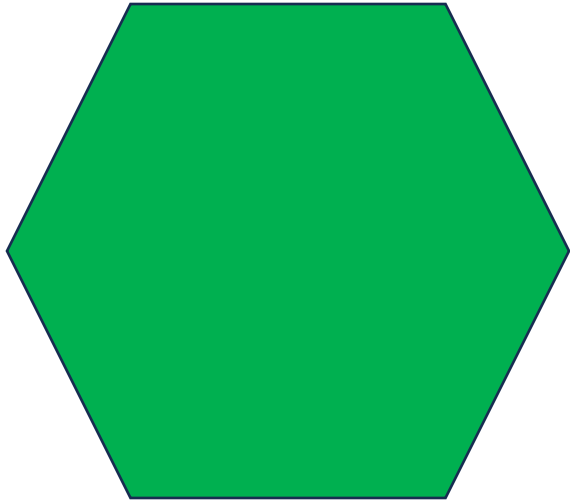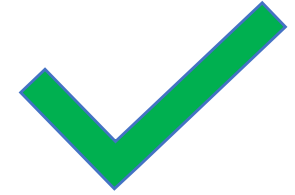
Map key milestones

A familiar process

- Course teams currently map how subjects contribute to CILOs when they accredit or reaccredit a course

- As courses are reviewed, course teams can also map key milestones for each CILO

- The new map would also show where more secure assessment strategies are planned
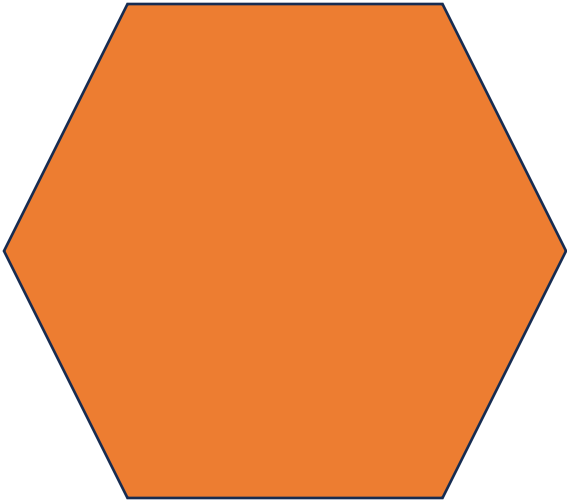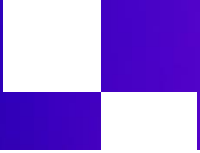
Key steps in choosing milestones

Prepare an assessment inventory

Decide on a sustainable number of milestones

Identify key moments across a course

Aligned professional learning and recognition

Embedded into the 'doing' of work related to reform
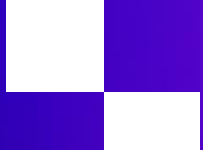
'Educative' practice
- Building capability for curriculum and assessment rredesign as they undertake this work
- Team based
- Focus on course leadership

Aligned to recognition processes
- Advance HE professional standards framework
- Staff supported to collect evidence

AI assisted
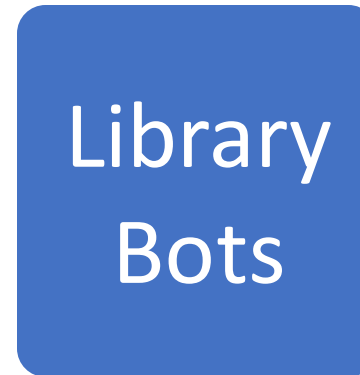- Bots to coach
- Synthesize evidence via portfolio

UTS provision of GenAI
to students and staff

Secure, authenticated GenAI apps for UTS students and staff

Bing Copilot

GPT4 integrated with Web search with verifiable sources
https://copilot.microsoft.com

Library Bots

Literature search and summarization bots licensed for copyright material (which no other bots should be ingesting)

Custom UTS chatbots

Customised chatbots hosted in MS Azure AI, integrated into the Subject, archived chats. New release in devpt for AUT25 offering role-based access at scale

Bots that answer your question, grounded in a curated corpus of resources (e.g., Canvas; FAQs)

Bots that conduct specific kinds of pedagogical conversation (e.g. role-play; reflective dialogue)

Canvas module: Introduction to learning and teaching with GenAI

Contextualised for UTS

Microsoft Copilot at UTS

All staff and students at UTS have access to Microsoft Copilot through our Microsoft enterprise licence. Copilot is an GenAI-powered tool that uses ChatGPT 4 and DALL-E. You can use prompts that are text, audio, or image-based. The benefit of using the Copilot as part of UTS' Microsoft Enterprise Licence is that it is secure and protects your personal and company data. Microsoft will not use your data to train Large Language Models (LLMs) and your text and files will remain within the control of UTS. Copilot also complies with UTS privacy requirements.

Accessing Copilot securely

To log in to the secure UTS Enterprise instance of Copilot, in any browser navigate to https://copilot.cloud.microsoft/ and follow the prompts.

GenAI's role in higher education

Explore the three use cases below - try them yourself and consider how you might adapt this for your own learning and teaching activities.

Teaching | Example 1: Breaking down the reading wall

My request (I am a teacher)

I need to give a tutorial on the so... need some ideas on **how to mak**... and they are first-year nursing st... long for them to read the whole t... activities I might do in class with on... Can you give me some ideas, including group work, pair work, etc.

Practical activities

► Try breaking down the reading wall

2024 Learning and Teaching Forum

Canvas module: Assessment in the Age of GenAI

Impact of GenAI on assessment practice

How has GenAI changed your assessment practice?

Module 2 | Assessment in the Age of GenAI | How has GenAI changed your assessment practice?

Let's jump straight into looking at the impact of GenAI on your assessments. You may have already tried to complete your own assessments using GenAI, if you haven't, this is an opportunity see what Copilot produces.

Copilot at UTS

All staff and students at UTS have access to Microsoft Copilot through our Microsoft enterprise license. The benefit of using the Copilot as part of UTS' Microsoft Enterprise Licence is that it is secure and protects your personal and company data. To log in to the secure UTS Enterprise instance of Copilot, in any browser navigate to https://copilot.cloud.microsoft/ ↗ and follow the prompts.

What does it mean to assure learning?

Module 3 | Assessment in the Age of GenAI | What does it mean to assure learning?

At the beginning of this module, you read about how assessments need to assure learning but also be secured when necessary. You'll look at assessment security in the final part of this module, now we're going to take a look at what it means to assure learning.

Assurance of learning refers to the systematic process of evaluating whether students have achieved the intended learning outcomes of their subject and, ultimately, their course. It involves collecting and analysing data on student performance across multiple tasks to ensure that learning objectives are being met.

### Assessment review questions

The following questions will help you to look at assessments in your subject, or even across a whole course, and reflect on your overall assessment strategy to ensure assurance of learning.

- What do you need to assess? (look at your SLOs)
- What is the best way to assess that to assure learning?
- Which assessments should be formative and which summative ↗?
- What is the feedback philosophy? High touch (lots of detailed feedback), medium touch, low touch (little specific feedback)?

Practical activities to help review assessments

Sector Engagement
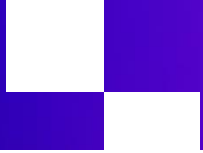
Collaborative efforts continue

- Extending work with TEQSA to produce a new guide
  - Working with Jason Lodge, Margaret Bearnan, Danny Lui, Rowena Harper to outline emerging insitutiional approaches
  - Notably TEQSA have flagged that from 2026 they will move from an educative response to a regulative one.

- National and state events

- University leader's Community of Practice – sharing institutional approachs

- Collaborative research

Researching the student voice

Student Perspectives on AI in Higher Education

AIinHE.org

Made with AI+HI

8000+ students surveyed • 80 students in Focus Groups
https://AIinHE.org/results/ • LX story with some headlines

UTS

spotlight series on our findings
https://futurecampus.com.au/news/

Students & AI: Five assumptions
By Margaret Bearman and Tim Fawns
‖ November 5, 2024

ASSUMPTION: STUDENTS LACK INTEGRITY WITH AI

Think students don't care about integrity when using AI?

Assumption: Students' use of AI is motivated by laziness
By Michael Henderson, Jennifer Chung and Alice Yu
‖ November 26, 2024

Assumption: Students Are Using GenAI in the Same Way
By Jack Walton & Christine Slade
‖ November 12, 2024

Assumption: Students don't know how to use AI critically
By Antonette Shibani and Lisa-Angelique Lim
‖ November 19, 2024

Challenges

- Extent of change across the sector – financial challenges

- Curriculum reform and assessment change requires investment

- Time: Need to adapt is urgent, whole of course approach takes time

- Students - Rising cases of misuse of GenAI eg Fabricating references

- Engaging staff – change fatigue

- AI - continues to evolve ....

Other resources

TEQSA: Artificial Intelligence Good Practice Hub on the TEQSA website

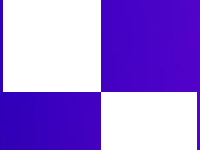**National report:** Assessment reform for the age of artificial intelligence

The evolving risk to academic integrity posed by generative artificial intelligence: Options for immediate action (2024)

CRADLE Deakin University: vast range of resources https://blogs.deakin.edu.au/cradle/about/

- **Guides – see in particular Assessment and GenAI, Feedback and GenAI**

- **CRADLE Seminar Series 2025 – see here**

- **CRADLE Seminar Series 2024 #5: Assessment beyond the individual unit/module**

- **CRADLE Seminar Series 2024 #4: Evaluative judgement, AI, and authentic assessment**

- **Seminar Series 2024 #7: Is it time to rethink the role of high stakes exams?**

- **Publications**

UTS Learning and Teaching Forum

- **2023 – Keynote David Boud: Following the disruption: addressing key issues in assessment reform**

- **2024 – Keynote Margaret Bearman – not recorded but link to related paper on evaluative judgement**

Thank you and discussion